

ABSTRACT

Background: Community acquired infections are a common problem in the intensive care units across the world as well as in India contributing to severe morbidity and mortality. However, there is paucity of data from Indian centres on commonest infections and the associated risk factors for mortality and morbidity. This study was undertaken to study community acquired infections and their outcomes with risk factors for mortality and morbidity.

Aims and objectives: To determine the etiological and clinical spectrum of severe community acquired infections requiring ICU care, their admission correlates and determine factors influencing outcomes.

Methods: 107 patients were included retrospectively and 28 were included prospectively and their course was followed throughout hospital stay. Data collected included demographic variables, APACHE score and laboratory parameters. The primary outcome studied was death and secondary outcomes were nosocomial complications.

Results: The three commonest infections in the study were scrub typhus (55.6%), acute pyelonephritis (14.8%) and community acquired pneumonia (CAP) (8.9%). Commonest etiological agent causing bacteremia was *E.coli* (66.7%) out of which ESBL were 54.5%, followed by *S. pneumoniae* 12%. Febrile illness with eschar, leucocytosis, and transaminitis characterised scrub typhus. Febrile illness with dysuria, flank pain and isolation of typical organism characterised acute pyelonephritis. Fever with respiratory symptoms and radiological features of consolidation characterised CAP. The commonest co-morbidity was diabetes (46.7%). Shock requiring vasoactive agents was an independent factor for mortality in scrub typhus and acute pyelonephritis. The overall mortality rate in the study population was 29.5%. A higher APACHE score on admission correlated with poor outcome.

Conclusion: Community acquired infections are a common cause of admission to the ICU and are associated with a higher rate of mortality. Scrub typhus, acute pyelonephritis and CAP are the commonest infections in the ICU.

KEYWORDS- Community acquired infections, medical intensive care unit, medical high dependency unit, severe infections, scrub typhus, pyelonephritis, community acquired pneumonia, *Escherichia coli*.